

**CLAIMS:**

1. A method of manufacturing a flat panel light emitting device of a predetermined size, comprising:
  - a) forming an area of light emitting materials on a substrate, the area being larger than the predetermined size;
  - b) detecting defects in the area;
  - c) determining a defect free portion of the area having the predetermined size; and
  - d) cutting the defect free portion from the substrate to produce the flat panel light emitting device.
2. The method of claim 1, wherein the device is an area illumination light source.
- 15 3. The method of claim 2, wherein the light emitting area includes a plurality of light emitting elements that are connected in series.
4. The method of claim 1 wherein the device is a display having a plurality of light emitting elements.
- 20 5. The method of claim 4 wherein the device is a display.
6. The method of claim 4 wherein the device is an area illumination light source.
- 25 7. The method of claim 5 wherein the light emitting elements are arranged in triplets that emit red, green, or blue light.
8. The method of claim 1, wherein the substrate is a web.
- 30 9. The method of claim 1, wherein the substrate is a discrete sheet.

10. The method of claim 1, wherein the substrate is flexible.
11. The method of claim 1, wherein the substrate is rigid.
- 5 12. The method of claim 1, wherein the light emitting elements are OLEDs.
13. The method of claim 1, wherein the light emitting area includes a plurality of identically shaped light emitting elements.
- 10 14. The method of claim 1, wherein the light emitting area includes a plurality of differently shaped light emitting elements.
- 15 15. The method of claim 1, wherein the light emitting elements are elongated strips.
16. The method of claim 1, further comprising the step of determining a maximum number of defect free portions that can be cut from the array.
- 20 17. The method of claim 1, wherein the light emitting device can have one of a plurality of predetermined sizes, and further comprising the step of determining an optimum arrangement of defect free portions of one or more of the predetermined sizes to be cut from the array.
- 25 18. The method of claim 1, wherein the light emitting device includes electrical contacts, and further comprising the steps of
  - a. providing a cover over the light emitting device, leaving electrical contacts extending beyond the cover, and
  - 30 b. sealing the cover to the substrate to encapsulate the light emitting materials between the substrate and the cover.

19. The method of claim 18, further comprising the step of removing overlying materials to expose the electrical contacts beyond the cover.

20. The method of claim 1, wherein the area of light emitting 5 materials defines a plurality of light emitting elements and further comprising the steps of:

- a) providing electrical conductors between the light emitting elements and the periphery of the defect free portion;
- b) providing a cover over the light emitting device, leaving the electrical 10 conductors extending beyond the cover, and
- c) sealing the cover to the substrate to encapsulate the light emitting materials between the substrate and the cover.

21. The method of claim 20, further comprising the step of 15 removing overlying materials to expose the electrical contacts beyond the cover.